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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/809,582	03/25/2004	Roy Feigel	AUS920030881US1	7124
45327 7590 09/30/2008 IBM CORPORATION (CS) C/O CARR LLP 670 FOUNDERS SQUARE 900 JACKSON STREET DALLAS, TX 75202				
EXAMINER MA, CALVIN				
ART UNIT 2629		PAPER NUMBER		
MAIL DATE 09/30/2008		DELIVERY MODE PAPER		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

### Office Action Summary

**Application No.**

10/809,582

**Applicant(s)**

FEIGEL ET AL.

**Examiner**

CALVIN C. MA

**Art Unit**

2629

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 June 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1 and 3-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 3-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SE/US)  
Paper No(s)/Mail Date \_\_\_\_\_
- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

**DETAILED ACTION**

***Response to Amendment***

1. The amendment filed on 01/10/2008 has been entered and considered by examiners.

***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1,3-8, 10-18, 20-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara et al. (U.S. Patent: 5,784,035) in view of Zerphy et al. (U.S. Patent: 7,248,229) and further in view of Apple (U.S. Patent: 7,082,398)

As to claim 1, Hagiwara teaches a method for rendering a display (12) over a plurality of graphical interfaces (14a, 14b, 14c, and 14d) (see Fig. 1, Col.3, Lines 60-67 and Col.4, Lines 1-11), comprising:

assigning a column number associated with each display of a plurality of display devices; assigning a row number associated with each display of a plurality of display devices; (i.e. since the 6x6 matrix performs the refreshment in various sequence according to software control it must assign identifier for each column and row and

since the matrix of plurality of pixel formation can be considered a display the 6x6 matrix is consist of 36 separately controlled display unit driven) (see Fig.4, Col.5, Lines 16-47)

generating an image to be displayed on at least two of the plurality of display devices (i.e. the multiple-screen display 12 acts as one large display to display image) (see Fig 1, Col.3, Lines 60-67 and Col.4, Lines 1-11);

generating a first (offset y) and second offset (offset x) for at least two of the plurality of display devices; (i.e. each local display has a local coordinate that is obtained with the two offsets) (see Col.5, Lines 1-6, Col.4, Lines 48-67)

selecting at least two segments of the image as a function of the first and second offset (i.e. since each local display uses calculations with respect to the two offsets to arrive at the segment) (see Col.5, Lines 1-6, Col.4, Lines 48-67); and

Also, Hagiwara, in the background of the invention, indirectly teaches projecting the at least two selected segments on the at least two display devices. (i.e. the four local displays in Fig. 1 use local screen data as information to be displayed and the large display screen comprising of projection type displays arranged in a matrix) (see Fig. 1, Col. 1, Lines 12-20, Col.3, Lines 60-67 and Col.4, Lines 1-11)

However Hagiwara does not explicitly teach dynamically defining a plurality of image segments during a time when the image is rendered, wherein the segments comprise one or more portion of the image. Zerphy teaches dynamically defining a plurality of image segments (i.e. the number of the display unit to be outputted is dynamically updated and polled, the image segment due to each of the individual unit is

therefore dynamically defined during the time the rendering takes place) (see Zerphy, Fig. 6, Col. 6, Line 37 - Col. 7, Line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the dynamically defining a plurality of image segments of Zerphy in the multiple display system of Hagiwara in order to prevent degradation of display by creating communication integrity. (see Zerphy Col.1, Lines 47-64).

Apple teaches the segments comprise one or more portion of the image (i.e. the display wall application where multiple zones of images are implemented on different portion of the display matrix as individual segments) (see Apple, Fig. 1, Col. 3, Lines 50-67). Therefore, it would have been obvious for one of ordinary skill in the art at the time the invention was made to have expanded to display segment function of Hagiwara as modified by Zerphy with the dynamic expandable segment system of Apple in order to create an improved financial information display system (see Apple, Col. 1, Lines 30-40).

Claims 20 and 21, are analyzed of having the same limitation as claim 1 and is rejected for the same reasons.

As to claim 3, see discussion of claim 1 above, Hagiwara and Zerphy teaches the method of claim 1 occurs at a client, but does not explicitly teach a client. Apple teaches a client. (i.e. the stock tick information that makes up the dynamic segment

come from the stock ticker (ST), the client, must get the information from data server 2540 that actual provide the data update, this data server ) (see Apple, Fig.25, Col. 11, Lines 34-38).

As to claim 4, see discussion of claim 3 above, Apple teaches the method of selecting of at least one segment of the images is performed by a server. (Data Server 2210) (i.e. the Data server provides provide the display data processors the information to be displayed) (see Fig.23, Col.9, Lines 41-65)

As to claim 5, see discussion of claim 3 above, Apple teaches the method of claim 1, wherein the selecting at least one segment of the images is performed by a client. (User console 2530) (i.e. the user console create content for the user content and provide VIP access) (see Fig22B, Col.12, Lines 4-10).

As to claim 6, see discussion of claim 1 above, Hagiwara teaches the method of claim 1, where in a virtual image is displayed over two adjacent screens. (i.e. since the applicant defines "virtual image" as duplicate image instead of optically virtual image, it is clear that as a text image scrolling across the larges display (the 6x6 matrix in Fig.4) it invariable will result in duplicate images crossing the boundary of the local display) (see Fig.4, Col.5, Lines 36-47)

As to claim 7, see discussion of claim 1 above, Hagiwara teaches the method of claim 1, wherein the row number is equal to the first offset (offset y) and the column

number is equal to the second offset (offset x). (i.e. if the local data are identical to the all data then the offset will be the same as the row and column number since in Fig.5 the 6x6 system of matrix display is clearly arrange this way, as demonstrated in formula 1) (see Col.5, Lines 1-6, Col.4, Lines 48-67)

As to claim 8, see discussion of claim 1 above, Hagiwara clearly teaches the method of claim 1, wherein the first offset is equal to the vertical offset (offset y) and the second offset is equal to the horizontal offset (offset x) for at least one of the plurality of display devices. (i.e. when the local coordinate is different then the all data then the first offset and the second offset would be the vertical and horizontal offset, as demonstrated in formula 1) (see Col.5, Lines 1-6, Col.4, Lines 48-67)

As to claim 10, see discussion of claim 1 above, Hagiwara teaches the method of claim 1, further comprising selecting at least two of the plurality of display devices. (i.e. from Fig.3 a four screen system is demonstrated where the offset is shown with respect to the coordinate system of the display appear so all four local display is selected to apply the local screen data to create the image)

As to claim 11, see discussion of claim 1 above, Hagiwara and Zerphy teaches the method of claim 1, wherein the step of generating an image to be displayed on at least two of the plurality of display devices.

Apple teaches generating an image to be displayed on a graphical user interface. (i.e. multimedia computer 2740 is said to be Intel-based PCs and Apple Macintoshes

which clearly have graphic user interface and are attached to the Router 2750 which control the video wall 2270 sending signal to the individual monitor) (see Fig. 28, Col.14, Lines 1-24) Thus combining Hagiwara, Zerphy and Apple would meet the claimed limitation.

As to claim 12, see discussion of claim 1 above, Hagiwara teaches the method of claim 1, wherein the step of generating an image to be displayed on at least two of the plurality of display devices further comprises generating a video image (i.e. analog video signal is received by screen data generating section 11, the video data generating circuit 23 then convert the supplied video signal into digital video data. Which then sent to the local data selecting circuit 15 and finally displayed after transmitting to the local data generating section 14a to 14d) (see Fig.8, Col.5, Lines 62-67, Col.6, Lines 1-5)

As to claim 13, see discussion of claim 3 above, Hagiwara and Zerphy teaches the method of claim 1. Apple, teaches generating the image in a server coupled to the each display. (i.e. in the specification the applicant define servers as display computer (Fig.1), the display PC 2230-2235 are computer said to control two monitors, how ever Apple clearly state that this is a design choice where one skill in the art can choose, so coupling one computer with one display is demonstrated here) (see Fig.22A, Col.10 Lines 20-35) Thus combining Hagiwara, and Apple would meet the claimed limitation.

As to claim 14, see claim 1 above, Apple teaches the method of claim 1, further comprising generating the image in a client (14a, 14b, 14c, 14d) coupled to each



display. (12a, 12b, 12c, 12d) (i.e. the local data generating section correspond to each individual display to generate the images) (see Fig.1, Col.4, Lines 5-10)

As to claim 15, see discussion of claim 3 above, Hagiwara and Zerphy teaches wherein the step of segmenting is performed in a local data generating section (14a-14d) coupled to the display device. (i.e. the local display is divided into a smaller 6x6 matrix which constitute segmenting) (see Fig.4, Col.5 Lines 16-35) Apple clearly teaches a server computer that controls the individual display. (i.e. in the specification the applicant define servers as display computer (Fig.1), the display PC 2230-2235 are computer said to control two monitors, how ever Apple clearly state that this is a design choice where one skill in the art can choose, so coupling one computer with one display is demonstrated here) (see Fig.22A, Col.10, Lines 20-35) Thus combining Hagiwara, Zerphy, and Apple would meet the claimed limitation.

As to claim 16, see discussion of claim 3 above, Hagiwara and Zerphy teaches wherein the step of segmenting is performed in a client. (11 screen data generating section) (see Fig.1, Col.3 Lines 60-67) Apple teaches the plurality of server that is coupled is own respective individual display. (see Fig. 22A, Col.10, Lines 20-35) Thus combining Hagiwara, Zerphy, and Apple would meet the claimed limitation.

As to claim 17, Hagiwara teaches the method of claim 1, further comprising synchronizing the plurality of display devices to start execution substantially the same start time. (i.e. the screen data generating section provide a time stamp onto selected local screen data, allowing the synchronization with one another based on the time

stamp, which allows videos to be displayed without deficiency, which means that the local display units are start at the same time to present a viewable video as a whole) (see Col.2, Lines 30-42, Col. 7, Lines 12-16)

As to claim 18, Hagiwara teaches the method of claim 1, further comprising synchronizing the plurality of display devices to display a plurality of images in succession at substantially the same time. (i.e. the display is able use successive transmission to create horizontal, vertical, and diagonal movement of information) (see Col.2, Lines 5-30, Col. 7, Lines 12-16)

4. Claim 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Hagiwara in view of Zerphy and further in view of Apple as applied to claim 1 above, and further in view of Tretter et al. (U.S.P.G. Pub: 2005/0093894).

As to claim 9, Hagiwara and Zerphy teaches the method of claim 1, wherein the second offset is equal to the horizontal offset for at least one of the plurality of display devices. However both Hagiwara and Zerphy do not teach wherein the first offset is not equal to the vertical offset.

Tretter teaches diagonal offset(see Fig.24, [0026]). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have included the diagonal offset as taught by Tretter as the first offset in the multiple

display system of Hagiwara as modified by Zerphy in order to increase the resolution of the displayed image. (see Tretter [0004])

5. Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Apple in view of Zerphy.

As to claim 19, Apple teaches a system for display a graphical image on a plurality of screens (2080) (see Fig. 20), comprising:

a client computer (2531 VIP console ) (see Fig. 25); a plurality of server computers (DC1-DC28) coupled to the client computer (see Col. 12 Lines 4-10);

a display of plurality of graphical devices (2080), wherein each device is coupled to at least one server (see Col. 10, Lines 20-35);

and wherein the client is configured to segment a video image for substantially concurrent rendering by the plurality of server computer(i.e. since 2-video teleconferencing area 130 and 135 consists of ten individual display that is interacting with the VIP console to create segments of video images to the five servers that controls the ten individual displays, and since the ten individual displays are controlled by the five servers to render the video, it is required for the server to create a concurrent rendering of the video) (see Fig. 1A, Col.3, Lines 59-67, Col.7, Lines 53-58, Col. 12, Lines 4-10).

However Apple does not explicitly teach dynamically segment. Zerphy teaches dynamically segment (i.e. the number of the display unit to be outputted is dynamically

updated and polled, the image segment due to each of the individual unit is therefore dynamically defined during the time the rendering takes place) (see Zerphy, Fig. 6, Col. 6, Line 37 - Col. 7, Line 5).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used the dynamically defining a plurality of image segments of Zerphy in the multiple display system of apple in order to prevent degradation of display by creating communication integrity. (see Zerphy Col.1, Lines 47-64)

### ***Response to Argument***

6. Applicant's arguments with respect to claims 1-21 have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

### ***Inquiry***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CALVIN C. MA whose telephone number is (571)270-1713. The examiner can normally be reached on 7:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chanh Nguyen can be reached on 571-272-7772. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Calvin Ma  
September 23, 2008

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